

CLAIMS

What is claimed is:

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1. A system for optimizing load distribution on a vehicle comprising:  
 at least one load sensor generating a load signal;  
 5 a memory unit storing load optimization data; and  
 an evaluation unit in communication with said load sensor and said memory  
 unit for evaluating said load signal based upon said load optimization data.

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2. The system of claim 1 wherein at least one load sensor is on a vehicle.

3. The system of claim 1 wherein at least one load sensor is a plurality of load  
 sensors in communication with said evaluation unit.

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Sub A2)

4. The system of claim 1 wherein said load sensor is on at least one axle.

5. The system of claim 1 wherein said load optimization data comprises vehicle  
 characteristic information for optimizing load distribution.

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6. The system of claim 1 wherein said load optimization data comprises load  
 limit information for optimizing load distribution.

Sub A3)

7. The system of claim 1 wherein said load optimization data comprises vehicle  
 performance information for optimizing load distribution.

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8. The system of claim 1 wherein said load optimization data comprises vehicle  
 power train information for optimizing load distribution.

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9. The system of claim 1 further includes a position sensor in communication  
 with said evaluation unit for determining the position of a component of said vehicle  
 30 for optimizing vehicle loading.

10. The system of claim 9 wherein said component is said axle.
11. The system of claim 9 wherein said component is said kingpin of said vehicle.
- 5 12. The system of claim 1 further comprising a display in communication with said evaluation unit.
- 10 13. The system of claim 12 wherein said display is a graphical user interface permitting the entry of data for processing by said evaluation unit.
14. The system of claim 12 wherein said display is in said vehicle.
- 15 15. The system of claim 12 wherein said display is hand-held.

16. A method for optimizing load distribution on a vehicle comprising the steps of:

5 determining the load distribution of a vehicle;  
electronically evaluating the load distribution of the vehicle with load optimization data; and  
producing instructions for optimizing load distribution based upon the evaluation.

10 17. The method of claim 16 wherein the load optimization data comprises vehicle characteristic information for optimizing load distribution.

18. The method of claim 16 wherein said load optimization data comprises load  
15 limit information for optimizing load distribution.

19. The method of claim 16 wherein said load optimization data comprises vehicle performance information for optimizing load distribution.

20 20. The method of claim 16 wherein said load optimization data comprises vehicle power train information for optimizing load distribution.

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